

A NEW SPECIES OF *WURIA* K. VIETS FROM NORTHERN AUSTRALIA (ACARINA: ARRENURIDAE)

MARK S. HARVEY

Department of Environmental Records, Museum of Victoria,
71 Victoria Crescent, Abbotsford, Victoria 3067, Australia.

(Present address: Department of Arachnology,
Western Australian Museum, Francis Street,
Perth W.A. 6000, Australia)

ABSTRACT

Wuria boutit sp. nov. is described from three specimens collected in Fogg Dam, Northern Territory, Australia. A key to the known species of the genus is presented.

KEYWORDS: Acarina, Arrenuridae, *Wuria*, new species, northern Australia.

INTRODUCTION

The water mite family Arrenuridae currently includes seven Recent genera (Cook 1974), of which the most diverse is *Arrenurus* Dugès. This genus is widespread throughout the world, and although only 15 species have been described from Australia, many further species await description (Harvey, unpublished data). The only other arrenurid genus thus far encountered in Australia is *Wuria* K. Viets, which is represented by the new species described here from Fogg Dam, Northern Territory.

Only two species of *Wuria* have been previously described: *W. falciseta* K. Viets from Cameroon and Ghana, and *W. sumatrensis* (K. Viets) from Sumatra. Each species of the genus (including the one described below) are represented in collections by merely a few specimens, and males of the Sumatran species are currently unknown.

Methods follow Harvey (1987). The length/width ratios for each acetabular plate are calculated by dividing the maximum length of each plate by its maximum width. The ratios for *W. falciseta* and *W. sumatrensis* are taken from published illustrations in Cook (1974) and K. Viets (1916, 1935). The specimens of the new species, which are mounted on slides in glycerol gel, are lodged in the Northern Territory Museum, Darwin (NTM) and the Museum of Victoria, Melbourne (NMV).

SYSTEMATICS

Genus *Wuria* K. Viets

Wuria K. Viets, 1916: 365; K.O. Viets 1987: 825 (type species *Wuria falciseta* K. Viets, 1916, by original designation).

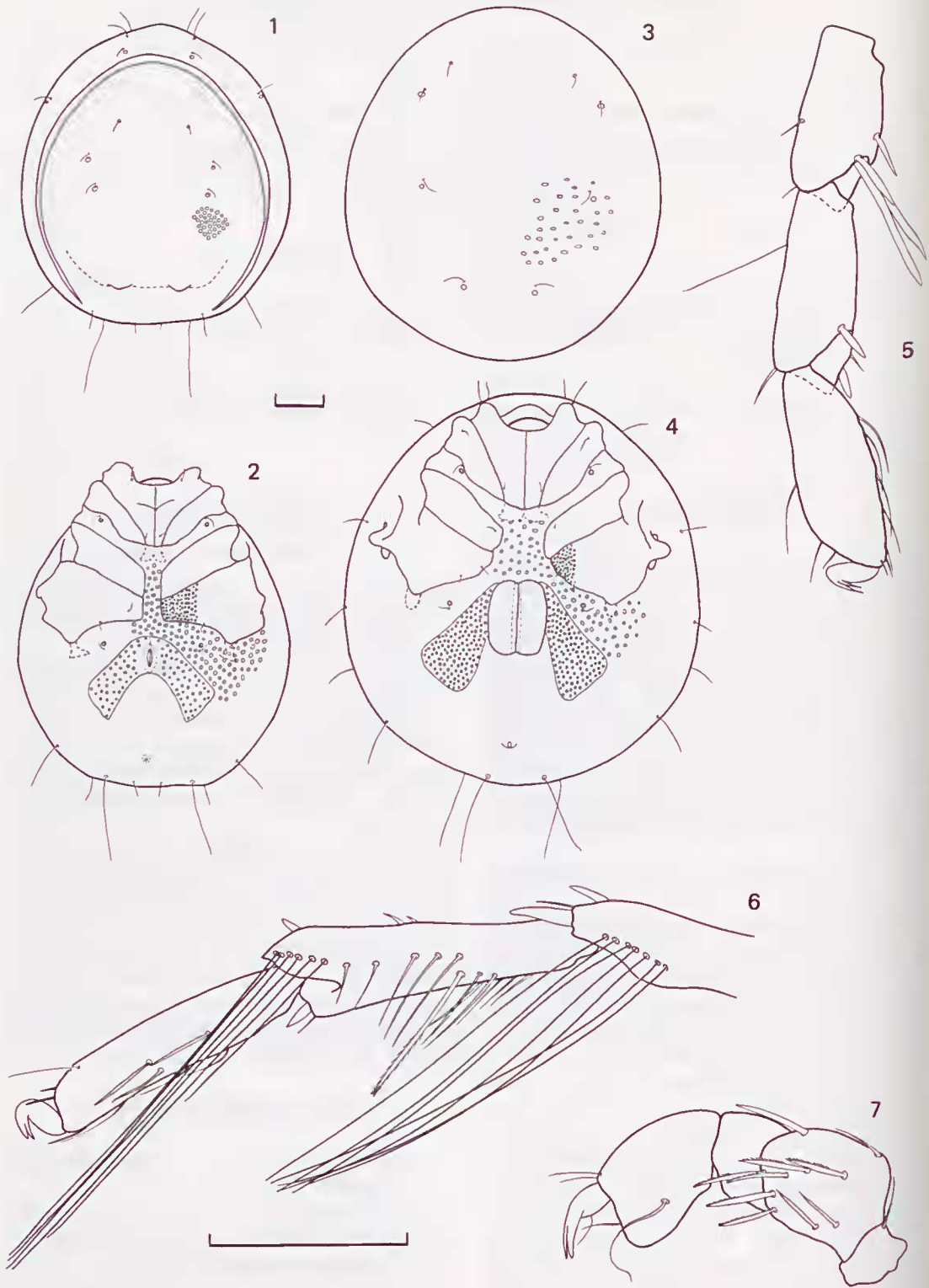
Wuriella K. Viets, 1935: 731 (type species *Wuriella sumatrensis* K. Viets, 1935). Synonymized by Cook (1974).

Diagnosis. Genital acetabula on indistinct plates, posteriorly directed. Capitular bay shallow. Antagonistic bristle of pedipalpal tibia long.

Remarks. The synonymy of *Wuriella* with *Wuria* by Cook (1974) was proposed provisionally pending the discovery of a male of the type species. Although males of *W. sumatrensis* remain undescribed, discovery of a new species of *Wuria* from northern Australia supports the proposed synonymy as females appear to be congeneric with those of both *W. falciseta* and *W. sumatrensis*.

Key to species of *Wuria*

1. Males (those of *W. sumatrensis* not known).....2
Females.....3
- 2(1). Each acetabular plate approximately 2.2 times as long as broad.....
.....*boutit* sp. nov.
Each acetabular plate approximately 1.0 times as long as broad.....
.....*falciseta* K. Viets



Figs 1-7. *Wuria boutit*: Figs 1, 2, 5-7, holotype male; Figs 3, 4, paratype female: 1, dorsal aspect; 2, ventral aspect; 3, dorsal shield; 4, ventral aspect; 5, left leg I, genu, tibia and tarsus; 6, left leg IV, distal portion of genu, tibia and tarsus; 7, right pedipalp. Figs 1-4, to same scale; 5-7, to same scale. Scale lines 100 μ m.

- 3(1). Distance separating dg2 greater than distance separating dg3.....
*sumatrensis* K.O. Viets
 Distance separating dg2 approximately equal to distance separating dg3
4
 4(3). Each acetabular plate approximately 1.7-1.9 times as long as broad
*boutit* sp. nov.
 Each acetabular plate approximately 1.1 times as long as broad.....
*falciseta* K. Viets

Wuria boutit sp. nov.
 (Figs 1-7)

Type material. HOLOTYPE - male, Fogg Dam, Northern Territory, 13.vii.1987, M.S. Harvey and A.L. Yen, NTM A49. PARATYPES - 1 female, same data except 29.vi.1987, NTM A50; 1 female, same data, NMV K871.

Diagnosis. Acetabular plates narrow, each plate 2.15 (male), 1.71-1.89 (female) times as long as broad.

Description. *Adults:* Colour of male pale blue-green (specimen may be teneral), of female brilliant emerald green. Idiosoma (Figs 1-4): nearly round, 1.14 (male), 1.08-1.11 (female) x as long as broad; with conspicuous pores in male, with slightly less conspicuous pores in female; dorsal furrow of male incomplete, of female complete; dorsal shield with 3? (male), 3 (female) pairs of dorsoglandularia, and postocularia; distance separating dg2 approximately equal to that separating dg3; coxae I fused medially, faint suture line present; coxae III and IV separated from opposite members; suture line between coxae III and IV extending anterolaterally; coxa IV with well-developed condyles at insertions of leg IV. Acetabular plates indistinct, especially in female; extending posterolaterally from gonopore; each plate narrow, 2.15 (male), 1.71-1.89 (female) x as long as broad; total width of genital field 0.64 (male), 0.65-0.69 (female) x as long as broad. Capitular bay shallow; capitulum not fused with coxae. Pedipalp (Fig. 7): 5-segmented; uncate; slightly rotated; femur without dense patch of microsetae, but with 8-9 slightly serrate setae medially; antagonistic bristle of tibia very long. Legs (Figs 5-6): leg IV of male and female similar; telofemur, genu and tibia IV with small distal projections; tarsus

IV slightly curved; with swimming setae arranged as follows: leg II: male, genu 3, tibia 4, female, genu 3, tibia 4; leg III: male, genu 5, tibia 6, female, genu 6, tibia 9; leg IV: male, telofemur 2, genu 7, tibia 6, female, telofemur 2, genu 7, tibia 12.

Dimensions (μm), male (female): dorsal shield 544/454 (719-735/623-656); ventral shield 621/544 (779-789/703-728); genital field 38/13 (154-160/125-131); pedipalp: trochanter 22 (25), femur 65 (70-73), genu 49 (52-55), tibia 75 (83-87), tarsus 35 (40-41); leg I: trochanter 78 (70), basifemur 62 (76-80), telofemur 73 (78-80), genu 88 (99), tibia 102 (118-119), tarsus 113 (127-132); leg IV: trochanter 123 (130-146), basifemur 109 (108-116), telofemur ? (118), genu 136 (159-166), tibia-177 (186-192), tarsus 153 (167-173).

Etymology. The specific epithet is an arbitrary combination of letters and is to be treated as an indeclinable noun.

Remarks. *Wuria boutit* differs from the two other described species of the genus by the narrow acetabular plates. In *W. boutit*, each acetabular plate is 2.15 (male), 1.71-1.89 (female) times as long as broad, in *W. falciseta* it is 0.99 (male), 1.08 (female) times as long as broad, while in *W. sumatrensis* it is 1.20 (female) times as long as broad.

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